Santa Rosa Plain
Some Possible Model Simulation Scenarios

Parameters/Components to Include for Different Scenarios

Climate Parameters (4)

- 30-Year Normal Weather: Variable precipitation over 30-year period
- 30-Year Dry Weather: Combined sequential driest 30-year period
- Climate Change (A2): A2 scenario assumes increasing carbon dioxide emissions over next 100 years
- Climate Change (B1): B1 scenario assumes increasing carbon dioxide emissions over next 50 years and decreased emissions to below Year 2000 rates by 2100

Possible Water-Resource Management Components

- Increased Groundwater Use/Decreased Russian River Water Use
- Decreased Groundwater Use/Increased Russian River Water Use
- Increased Conservation
- Groundwater banking
- Stormwater recharge
- Recycled Water Use (increase or decrease)

Assumptions:

- Baseline Conditions (30-year horizon) of anticipated growth (based on demand projections from UWMPs and land use projections from General Plans)

Example Model Scenario Groupings

Simulation Scenario	Climate Condition	Water Management Component					
		Stormwater Recharge	Groundwater Banking	Increased Recycled Water Use	Increased Conservation	Increased Groundwater Use	Decreased Recycled Water Use
Scenario 1 (Base Case, i.e. No Action)	30-Year Normal Weather						
	30-Year Dry Weather						
	Climate Change – A2						
	Climate Change – B1						
Scenario 2 (Increase Conservation & Recycled Water)	30-Year Normal Weather			X	X		
	30-Year Dry Weather			X	X		
	Climate Change – A2			X	X		
	Climate Change – B1			X	X		
Scenario 3 (Enhanced Recharge)	30-Year Normal Weather	X	X				
	30-Year Dry Weather	X	X				
	Climate Change – A2	X	X				
	Climate Change – B1	X	X				
Scenario 4 (Increased GW Use & Decreased Recycled Water)	30-Year Normal Weather					X	X
	30-Year Dry Weather					X	X
	Climate Change – A2					X	X
	Climate Change – B1					X	X
Scenario 5 (Maximizing Management)	30-Year Normal Weather	X	X	X	X		
	30-Year Dry Weather	X	X	X	X		
	Climate Change – A2	X	X	X	X		
	Climate Change – B1	X	X	X	X		